



## EXPLOSION-PROOF

### Standard Pressure Transducer AST4600

#### Overview

Constructed with a simple-yet-rugged design, the AST4600 Explosion-Proof Pressure Transducer/Transmitter stands up to a variety of applications where price and performance are critical.

#### Factory Sealed Gauge Pressure Transducer

- Pressures from 100 to 20,000 PSI
- CSA approved for use in hazardous areas including:
  - ✓ UL1203/FM3615 Class I Zone 1 Group IIC
  - ✓ Class I Div 1 Groups A, B, C, D Explosionproof
  - ✓ Class II Div 1 Groups E, F, G Dust Ignition-proof

#### Vented Gauge Pressure Transducer

- Pressures from 1 to 1,000 PSI Gauge
- CSA approved for use in hazardous areas including:
  - ✓ Class I Zone 1 Group IIC
  - ✓ Class I Div 1 Groups A, B, C, D Explosionproof

#### Benefits

- ATEX / IECEx: Class I, Zone 1, Ex d IIC T5 Gb (Ta = -40°C to 85°C)
- ANSI/ISA-12.27.01.2003 Certified “Single Seal” (no secondary seal required)
- ABS (American Bureau of Shipping) Approved
- All Stainless Steel Construction | Rugged Design Withstands Harsh Environments
- Wide Operating Temperature | Low Static and Thermal Errors
- Suitable for High Shock and Vibration Applications
- Available in Exotic Alloys (Consult Factory for Inconel 718 or Hastelloy C276)

## EXPLOSION-PROOF

AST4600 Standard Pressure Transducer

### Applications

- Industrial OEM & Hydrogen Equipment
- Natural Gas Compressors
- Refrigeration
- Pipe Line Instrumentation
- Marine & Offshore
- Pressure Instrumentation
- Oil Platforms
- Well Head Pressure
- Power Generation
- Mining Applications
- Energy & Water Management

### Performance @ 25°C (77°F)

<b>Accuracy</b>	< ±0.25% BFSL   <±0.5% from 7,500 up to 20,000 PSI (includes non-linearity, hysteresis & non-repeatability)
<b>Stability (1 year)</b>	±0.25% FS, typical
<b>Over Range Protection</b>	2X Rated Pressure, Minimum
<b>Burst Pressure</b>	5X or 50,000 PSI (whichever is less)
<b>Pressure Cycles</b>	>100 Million

### Environmental Data

#### Temperature

<b>Operating Ambient</b>	-40 to 85°C (-40 to 185°F)
<b>Operating Media</b>	-55 to 125°C (-65 to 250°F)
<b>Storage</b>	-55 to 105°C (-67 to 221°F)

0-100% relative humidity, non-condensing

#### Thermal Limits

**Compensated Range** 0 to 55°C (32 to 132°F)

<b>TC Zero</b>	<±1.5% of FS
<b>TC Span</b>	<±1.5% of FS

#### Other

<b>Shock</b>	EN 60068-2-27
<b>Vibration</b>	EN 60068-2-6, 60068-2-64, and IEC 68-2-32
<b>EMI/RFI Protection:</b>	Yes
<b>Rating:</b>	IP-65 (vented), IP-66(factory sealed)

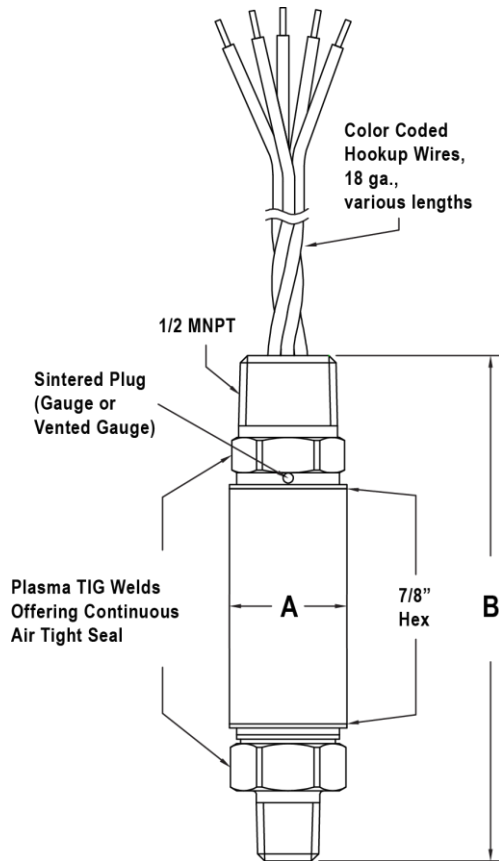
# EXPLOSION-PROOF

AST4600 Standard Pressure Transducer

## Electrical Data

<b>Output</b>	4-20mA	1-5VDC, 1-6VDC	0.5-4.5V ratiometric
<b>Excitation</b>	10-28VDC	10-28VDC	5VDC regulated
<b>Output Impedance</b>	>10k Ohms	<100 Ohms, Nominal	<100 Ohms, Nominal
<b>Current Consumption:</b>	25mA, typical	5mA, typical	<10mA
<b>Bandwidth</b>	(-3dB): DC to 250 Hz	(-3dB): DC to 1kHz	(-3dB): DC to 1kHz
<b>Output Noise</b>	-	<2mV RMS	< 2mV RMS
<b>Zero Offset:</b>	<±1% of FS	<±1% of FS	<±1% of FS
<b>Span Tolerance:</b>	<±2% of FS	<±1.5% of FS	<±1.5% of FS
<b>Output Load:</b>	0-800 Ohms@10-28VDC	5k Ohms, Min.	10K Ohms, Min.
<b>Reverse Polarity Protection</b>	Yes	Yes	Yes

## Dimensions



Model Series	Body Diameter "A"	Overall Length "B"
AST4600	0.875"	3.64"
AST46HA	1"	4.3"
AST46PT (4-20mA)	1"	4.8"
AST46PT (Voltage)	1"	4.3"
AST46SW	1"	4.8"

Wiring				
Output	Red	Black	White	Green
<b>Voltage</b>	+V Supply	-V Supply	Output	Case Ground
<b>4-20mA</b>	+V Supply	-V Supply	Not Used	Case Ground

For U.S. installations, sensor case ground (green wire) must be bonded to ground according to Article 501 & 505 of the NEC.

# EXPLOSION-PROOF

## AST4600 Standard Pressure Transducer

### Ordering Information

<b>AST4600</b>	<b>A</b>	<b>1</b>	<b>0000</b>	<b>P</b>	<b>4</b>	<b>T</b>	<b>1</b>	<b>000</b>	<b>-Z</b>
<b>Series Type</b>									
<b>Process Connection*</b>									
A= 1/4" NPT Male (up to 10,000 PSI)      F= 7/16"-20 UNF Male (up to 10,000 PSI)									
I= 1/4" NPT Female (up to 15,000 PSI)      P= 1/2" NPT Male (up to 15,000 PSI)									
W= F250C Female Autoclave (10,000 to 20,000 PSI)									
<small>* for other ports contact factory, "W" not available in 316L</small>									
<b>Pressure Range</b>									
G= Gauge Pressure**      V= Gauge Pressure (Vacuum Calibrated)**									
O= Sealed Gauge up to 9,999 PSI      1= Sealed Gauge up 10,000 to 19,999 PSI									
2= Sealed Gauge 20,000 PSI									
<small>** Not suitable for Class II</small>									
<b>Insert Pressure Code</b>									
Pressure PSI	0-1	Pressure Code Vented	G	0001	Pressure PSI	0-100	Pressure Code Vented	0	0100
	0-2.5++		G	0069		0-200		0	0200
	0-5		G	0005		0-500		0	0500
	0-7.5++		G	0208		0-1,000		0	1000
	0-10		G	0010		0-1,500		0	1500
	0-15		G	0015		0-2,500		0	2500
	0-25		G	0025		0-3,000		0	3000
	0-50		G	0050		0-5,000		0	5000
	0-100		G	0100		0-7,500		0	7500
	0-200		G	0200		0-10,000		1	0000
	0-500		G	0500		0-15,000		1	5000
	0-1,000		G	1000		0-20,000		2	0000
<b>Pressure Unit</b>									
B= Bar      K= kg/cm2      P= PSI									
<b>Outputs</b>									
1= 0.5-4.5V ratiometric      3= 1-5V      4= 4-20mA (2 wire loop powered)      6= 1-6V									
<b>Electrical</b>									
T= 2ft. 18 AWG wires      U= 4ft. 18 AWG wires      W= 2 Meter 18 AWG wires									
<b>Wetted Material</b> (consult factory on availability of Inconel 718 and Hastelloy C276)									
0= 17-4PH      1= 316L      2= Inconel 718      4= Hastelloy C276									
<b>Options</b>									
000= No Options      588= 0.5-2.5V non-ratiometric (3-5VDC)									
<b>Approval</b>									
Insert code from approvals chart below [Leave blank for standard approvals (see front page for details)]									
-Z	CRN Registered to ANSI/ASME B31.3. Contact factory for material, pressure, and process connection options.								

Note: CSA approved products require case/earth ground electrical connection. See wiring installation sheet for further details

### NORTH AMERICA

American Sensor Technologies, Inc. (AST),  
a TE Connectivity Company  
Tel: 1 800-522-6752  
Email: [customercare.molive@te.com](mailto:customercare.molive@te.com)

### ASIA

Hong Kong Sensor Technologies (HKST),  
a TE Connectivity Company  
Tel: 86 0400-820-6015  
Email: [customercare.shzn@te.com](mailto:customercare.shzn@te.com)

### TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.